

especially visible along the Toxaway River channel where it was scoured by flooding and extensive debris flows following the failure of the Lake Toxaway dam in 1916. In addition to rocky soils, much of the gorge is underlain by saprolite or decaying rock that is slowly breaking down into clayey soil. The forest is contiguous with few interruptions or breaks except occasional roads and trails in the interior of the site. The forest was heavily cut in the first half of the 20th century but has since grown up and is beginning to reach maturity.

The Toxaway River and its tributaries contain a wealth of biodiversity and scenic beauty. A number of waterfalls are found in the creeks and along the river, including Toxaway Falls, Upper and Lower Bearwallow Falls, Wintergreen Falls, the Auger Hole (a double falls at the confluence of Auger Fork and Maple Springs Branch), and several other falls on Toxaway Creek, Rock Creek, and other tributaries. Some of the falls, such as Toxaway and Wintergreen Falls, are cascade-like with water gliding over smooth rock surface. The exposed rock surface was left by the 1916 flood that scoured earth and rock away. Many falls have steep drops with spray zones on the sides and grottoes behind the torrents of falling water, which typically support Spray Cliff communities and the greatest concentrations of rare plants.

The Spray Cliffs along the Toxaway and its tributaries support some of the rarest plants in the Escarpment Gorges. Principal among these is single-sorus spleenwort (*Asplenium monanthes*), which is presently only known in the eastern United States from the Escarpment Gorges in North and South Carolina. The best Spray Cliff communities in the Gorge occur at Lower Bearwallow Creek, the Auger Hole, and along Rock Creek and Toxaway Creek. Moist ravines also occur along the rocky banks of the Toxaway River, Auger Fork, and its other tributaries and often harbor some of the same rare plants as the spray zones of waterfalls. Some of the rare species of ferns and bryophytes known from these communities include rock-fir clubmoss (*Huperzia porophila*), dwarf filmy-fern (*Trichomanes petersii*), bulblet bladder fern (*Cystopteris bulbifera*), Carolina star-moss (*Plagiomnium carolinianum*), long-beaked thread moss (*Plagiomnium rostratum*), lime homalia (*Homalia trichomanoides*), and Pringle's eurhynchium (*Platyhypnidium pringlei*). A number of other non-vascular plants were historically recorded from Spray Cliffs in the Gorge, including several rare liverworts of the genus *Plagiochila* and the only record of a rare hornwort (*Aspiromitus appalachianus*), which was inundated when Lake Jocassee was built.

The banks of the Toxaway River and tributary stream corridors support high quality natural communities and unique flora including extensive Acidic Cove Forest, natural White Pine Forest, and some of the largest populations of the southern variety of Oconee bells (*Shortia galacifolia* var. *galacifolia*) in the state. Lower portions of the Toxaway River and its tributary coves, e.g. Bearwallow Creek and Rock Creek, harbor an unusual variant of Acidic Cove Forest with a mix of foothills and montane plants. Typical cove species, such as eastern hemlock (*Tsuga canadensis*) and tulip poplar (*Liriodendron tulipifera*) are common along with sweetgum (*Liquidambar styraciflua*), which is uncommon in the mountains. Beech (*Fagus grandifolia*) also form an important part of the canopy in places and some trees reach quite large size in sheltered cove forests of the gorges. The understory usually contains Fraser's magnolia (*Magnolia fraseri*), and a dense tangle of rosebay rhododendron (*Rhododendron maximum*) and mountain dog-hobble (*Leucothoe fontanesiana*) is present underneath. The ground layer is often